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VIA ELECTRONIC MAIL AND U.S. MAIL

John N. Wachtler
Minnesota Environmental Quality Board
3rd Floor Centennial Building
658 Cedar Street
St. Paul, MN 55155

RE: In the Matter of An Environmental Impact Statement for an Independent Spent Fuel Storage Installation at the Monticello Nuclear Generating Plant

EQB Docket No. 04-87-CON-Monticello

I submit the following comments on behalf of Minnesotans for an Energy-Efficient Economy (ME3) on the Minnesota Environmental Quality Board's (EQB) Environmental Impact Statement Scoping Decision (Draft Scope) and Scoping Environmental Assessment Worksheet (Draft EAW) in the above-referenced matter. The Draft Scope and Draft EAW concern Xcel Energy's proposal to store spent nuclear fuel in casks outside its Monticello nuclear plant, a proposal that is directly connected to Xcel Energy's desire to relicense the Monticello plant from 2010 to 2030.

<u>The Draft Scope and Draft EAW Do Not Accurately Describe the Proposed Project</u>

The Draft EAW states that the proposed project is an Independent Spent Fuel Storage Installation (ISFSI) that would "store up to 30 dry storage canisters in concrete vaults."[1] This is not an accurate project description; it disregards the 35 additional storage modules that are listed in the Draft EAW as "planned" or "likely to happen" at the Monticello site.[2] The proposed project must therefore be examined as an ISFSI that would store spent fuel in up to 65 dry storage canisters in concrete vaults.

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1 Draft EAW, p. 11.

2 Draft EAW, p. 15-16.

As the Draft Scope and Draft EAW correctly acknowledge, "continued operation of the [Monticello] plant is a 'connected action' to the ISFSI" proposal.[3] Connected actions must be considered part of the total proposed project, and the direct and indirect impacts of, and alternatives to, the total proposed project must be analyzed in this EIS.[4] To properly consider the impacts of and alternatives to the total proposed project, EQB must at least begin with an accurate project description. The Final EIS Scope, EAW, and EIS should therefore describe the proposed project as continued operation of the Monticello plant and a 65-canister ISFSI.

To adequately inform the public and decision-makers, the impacts and alternatives to the total proposed project – accurately described as continued operation of the Monticello plant with a 65-canister ISFSI -- must be evaluated in the EIS. This will necessarily include analysis of on-site and off-site alternatives for the spent fuel of 65 – not just 30 – dry cask storage containers. The upward revision to 65 canisters needs to be made throughout the Draft Scope and Draft EAW, and affects numerous data points.[5]

If EQB does not modify the project description to acknowledge that it is actually one for 65 spent fuel storage canisters, potential future expansion of a 30-canister ISFSI must be evaluated in the EIS as an impact of the proposed project. The Draft EAW, however, states that the "EIS will not evaluate potential future expansion of the ISFSI."[6] As discussed above, future expansion of the ISFSI is "planned" and "likely", and cannot be disregarded in the EIS. At a minimum, future expansion of the ISFSI is a direct impact of a 30-canister project.

Disregard of ISFSI expansion disregards the fundamental fact that Xcel Energy's proposed project is not just for storage of current spent fuel from the Monticello plant's indoor storage pool, but also creation after 2010 of 20 more years of spent fuel that must be disposed of somewhere. Options for storage of all of this spent fuel must be identified in the EIS. The EIS must analyze the impacts and alternatives for on-site or off-site disposal of the waste generated to date and during the 20 years of continued operation of the plant.

If there are no known off-site alternatives to storing waste generated during continued operations of the Monticello plant at a potential future ISFSI, the EIS must disclose this

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[3] Draft EAW, p. 31; s*ee also*, Draft Scope, p. 1.

[4] Minn. Rules 4410.2000 subp. 4.

[5] For example, the cost section at page 14 of the Draft EAW would need to consider the costs of 65 casks and canister re-loading campaigns for the casks as the licenses for the ISFSI expire, and other costs. Similarly, "Project Magnitude Data" on page 16 of the Draft EAW would need to be revised.

[6] Draft EAW, p. 31.

to adequately inform the public and decision makers, so that a reasoned choice among alternatives is possible.

The EIS Must Analyze Xcel's Proposal As One For Permanent Storage Of Nuclear Waste

The Monticello EIS must proceed on the basis that the proposed dry cask storage at Monticello is long term and permanent. The Draft Scope, however, forecasts a fatal flaw for the Monticello EIS when it states that the EIS "will not evaluate the ISFSI as a permanent or long term repository."[7] Similarly, the Draft EAW at page 13 states that the facility is "temporary". Neither of these EQB statements is supportable.
The Draft Scope acknowledges several facts that require that the Monticello EIS analysis proceed on the basis that the proposed dry cask storage is both long term and permanent:

> No one knows exactly how long the spent fuel would be stored in the Monticello ISFSI. Even if a permanent repository at Yucca Mountain opens
> . . . [i]t is unlikely that the spent fuel stored at Monticello would fall within [the initial design capacity of Yucca Mountain]. So spent fuel stored in the Monticello ISFSI would remain there for an unknown length of time, and its ultimate destination remains uncertain.[8]

It is truly Orwellian for the EQB to acknowledge that the nuclear waste stored at Monticello would remain there for an unknown length of time with an unknown ultimate destination, but claim in the same breath that the storage is not long term or permanent. "Permanent", in a common dictionary definition, is "continuing or enduring without fundamental or marked change: stable" or "lasting".[9] When dry cask storage was evaluated for Xcel Energy's Prairie Island nuclear plant in the early 1990s, the Administrative Law Judge considered this same dictionary definition of "permanent" and found that the Prairie Island dry cask storage facility had to be considered a permanent storage facility. Judge Klein concluded that

> none of the witnesses who testified [in the CON contested case]. . . could give a definite date by which fuel would actually be removed from Prairie Island . . . The commonly used definition of "permanent" is "continuing or enduring without fundamental or marked change: stable," or "lasting" . . . The record reflects serious doubt as to when, if ever, a Yucca Mountain repository will be operational . . . Even if Yucca Mountain . . . does become operational, there may be a need for a second repository because of the legal limit on the amount

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7 Draft Scope, p. 4.

8 Draft Scope, p. 4.

9 Merriam Webster's Collegiate Dictionary, 11 ed. at 922.

> of fuel that the Yucca Mountain repository can hold. Current law places a capacity limit of 70,000 metric tons of waste on Yucca Mountain . . . [and] would reach maximum capacity under current storage schedules before all of Prairie Island's waste is taken . . . In all likelihood, DOE will not take spent fuel away from Prairie Island in the predictable future . . . In summary, this record fails to support a finding that the casks will only be temporary.[10]

The Minnesota Court of Appeals agreed in its review of the Prairie Island administrative decision that the proposed waste storage at Prairie Island was to be considered permanent, and agreed with the EQB that "the EQB may have to prepare" a supplemental EIS or new EIS for Prairie Island dry cask storage on a record that evaluated the proposal as one for permanent storage.[11]

The EIS analysis for the proposed Monticello project must proceed on the premise of permanence as well.[12] In addition to the existence of the same and additional factors affecting the continued unavailability of Yucca Mountain as a federal disposal destination, there is no federal repository even identified – much less designed or permitted - that could accept the waste from Monticello's current plant license that "won't fit" at Yucca Mountain, or <u>any</u> of the waste that Monticello creates over 20 additional years of operations.

Analysis of a <u>permanent</u> spent fuel storage installation at Monticello necessarily affects the evaluation of impacts of the proposal, the suitability of alternatives, and the economic costs of the project.[13] It is appropriate to evaluate the environmental impacts of the storage of spent fuel at Monticello for a period of thousands of years.

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[10] April 10, 1992, *Findings of Fact, Conclusions and Recommendation*, p, 13-19, In the Matter of the Application of Northern States Power Company for a Certificate of Need for the Construction of an Independent Spent Fuel Storage Facility, PUC Docket No. E-002/CN-91-19.

[11] *See, In the Matter of an Application for a Certificate of Need for Construction of an* ISFSI, 501 N.W.2d 638, 648 (Minn. Ct. App. 1993). A supplemental EIS was never prepared for the dry cask storage at Prairie Island. Instead, legislative action in 1994 provided the terms under which NSP could be granted its Certificate of Need for Prairie Island dry cask storage from the PUC.

[12] Analysis of this term of storage for the Monticello proposal does not implicate the 2003 revision to Minn. Stat. §116C.71 subd. 7, which states that an ISFSI is not "radioactive waste management facility". ME3 is not arguing that the Monticello ISFSI is a "radioactive waste management facility" under Minn. Stat. §116C.71 subd. 7, a statutory phrase that dictates a different legislative approval process than that which applies to Monticello.

[13] Indeed, the PUC's April 7, 2005 order to Xcel Energy regarding the completeness of the Monticello Certificate of Need Application directs the company to examine the costs of "long term" time frames, giving 200 years as an example, for the storage of Monticello's spent nuclear fuel. Environmental impacts of the project must be examined for that much time, and longer.

In addition, contrary to what is stated at page 4 of the Draft Scope, it is imperative for the EIS to address whether ISFSI design or operation is adequate for long term, permanent storage and to examine what storage alternatives exist upon expiration of the first NRC license for a Monticello ISFSI. Addressing this issue does not impinge on NRC's authority to establish and regulate the design and operation of an ISFSI. Rather, to inform the public and decision-makers, the EIS should disclose facts regarding the license term for the ISFSI canisters and the basis on which such ISFSI license terms may or may not be extended by NRC. For example, there is no basis for the EQB to refuse to disclose in the EIS that ISFSI's have not been licensed by NRC for permanent storage of spent fuel.

Yucca Mountain Is Inaccurately Identified As a Site Alternative to the Proposed Project

Page 5 of the Draft Scope identifies Yucca Mountain as a site alternative to the proposed Monticello project. The Draft Scope acknowledges, however, that it is "unlikely that the spent fuel stored at Monticello would fall within [the initial the design capacity of Yucca Mountain]."[14] The lack of capacity at Yucca Mountain for waste from Monticello is only exacerbated by considering – as EQB must - the entirety of the spent fuel generated as a result of the total proposed project, i.e., not just spent fuel that will be stored in the spent fuel pool by the end of 2010, but the spent fuel that will be generated from 2010 to 2030. Yucca Mountain is at best only a potential partial site alternative for the proposed ISFSI project, and thus it is inaccurate to identify Yucca Mountain as a site alternative for the proposed project.

To inform decision makers and the public, the EQB should only discuss Yucca Mountain as a potential partial site alternative for the proposed Monticello project; it is also important for the EIS to describe and quantify the extent of the Monticello-specific potential for this site alternative based on the current status of obstacles to permitting the Yucca Mountain facility, Yucca Mountain's current design capacity and current law's limits on that design capacity. Hypotheses that "the law could change" or "the design of Yucca Mountain could have been bigger than it is" have no place in the EIS for this project.

Alternatives to Continued Operation of the Monticello Nuclear Plant

The Draft Scope identifies "Alternatives to the Proposed Dry Cask Storage Facility" as distinguished from "Alternatives to Continued Operation of the Monticello Nuclear Plant."[15] One of the "Alternatives to the Proposed Dry Cask Storage Facility" is to "[e]xtend pool storage, including the potential to re-rack such that pool storage would be

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[14] The Draft Scope incorrectly states that the current design capacity of Yucca Mountain is 77,000 metric tons. The current design capacity is 70,000 metric tons, which is equivalent to 77,000 U.S. tons.

[15] Draft Scope, p. 4-5.

available until 2014."[16] It is unclear from the description of this alternative, whether the EIS will discuss extending pool storage at Monticello through methods other than re-racking. For example, the EIS should evaluate a "phase-out" option that assumes Monticello operates at reduced production levels for a period of time leading up to 2010, and potentially for a period of time beyond 2010 as well. These alternatives do not depend upon implementing the re-racking alternative. This type of "phase-out" option may, like re-racking, create potential for more demand-side and supply-side alternatives to continued operation of the Monticello plant. For example, a "phase-out" would allow additional time to implement a maximum amount of demand-side efficiency measures, and facilitate sequenced additions of generation facilities that are smaller than 600 MW. The EIS should therefore also combine a "phase-out" option that is not dependent on re-racking with the other "Alternatives to Continued Operation of the Monticello Nuclear Plant" discussed in the Draft Scope.

At page 5, the Draft Scope identifies five generation alternatives to continued operation of the Monticello plant – in addition to the no-build alternative -- that will be examined in the EIS. The Draft Scope also states on the same page that the "EIS will estimate the land necessary for a plant approximately 600 MW in size for each alternative." Since it is imperative for the EIS to analyze optimal combinations of alternatives, the EIS will not be limited to analysis of only 600 MW-sized "baseload" alternative plants. The Draft Scope states that EIS will examine "different wind configurations coupled with coupled with dispatchable baseload natural gas technologies", as well as scenarios that combine conservation, purchased energy, wind energy or other renewable and distributed generation.[17] An optimal combination alternative from a cost and emissions perspective may include a maximum amount of efficiency measures, followed by a smaller source or sources of generation. Thus, the land-use assumptions should obviously not be limited to the land necessary for a plant approximately 600 MW in size.

ME3 also cautions the EQB against making unsupported assumptions in the environmental review for the Monticello project regarding what is necessary to replace a "baseload" plant like Monticello. The Draft Scope, for example, makes the assumption that the wind energy alternative should be "coupled with . . . baseload natural gas technologies." The line between "intermediate" and "baseload" is not -- as many utilities assume -- a bright one. Alternatives, or combinations of alternatives that might be otherwise be labeled "intermediate", may very well mimic "baseload" operation when analyzed in the context of the utility's entire system.

Finally, the Draft Scope also states at page 5 that it will evaluate the "Strategist" model for possible use in the state EIS to evaluate reasonable alternatives to the continued operation of the Monticello plant. The Draft Scope further states that "if Strategist model

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[16] Draft Scope, p. 5. Depending on how this alternative is analyzed, it could be viewed as an "Alternative to Continued Operation of the Monticello Nuclear Plant".

[17] Draft Scope, p. 6.

details and assumptions are not available, a different method will be used." EQB should not base use of Strategist entirely on whether the Strategist model's details and assumptions are available, however. Instead, EQB should conduct an evaluation of Strategist to determine whether Strategist is actually the best available analytical tool for the EIS purpose. The Final Scope should therefore state that, "Unless the EQB determines that Strategist is the best available analytical tool for the analysis required in the EIS, and the model's details and assumptions are available to the EQB, a different method will be used."

Federal Issues

Preemption

The EQB proposes in the Draft Scope and EAW not to prepare a detailed examination in the state EIS of certain issues identified as regulated by the NRC. ME3 urges the EQB not to unnecessarily "preempt itself" in this matter, and instead set out to prepare a complete analysis of the significant environmental impacts of and alternatives to the proposed Monticello project.

Chapter 116D requires the EIS to examine all of the significant environmental impacts of this proposed project, regardless of which government entity may regulate the impacts and alternatives. The EQB should not consider the mere preparation of a state EIS that includes disclosure of all significant impacts of a proposed project an intrusion into a federal regulatory arena, but rather compliance with Ch. 116D's disclosure requirement to prepare an adequate analysis of all significant impacts of the Monticello project.

In a perhaps inadvertent example of EQB's tendency to "preempt itself", the Draft Scope overstates federal preemption when, on page 1, it states that "health and safety issues related to the ISFSI are preempted by NRC regulations." State regulation of health and safety issues related to the ISFSI may be preempted by NRC jurisdiction, but disclosure of the health and safety impacts and issues is not tantamount to state regulation of those issues.[18] Similarly, the Draft Scope is unclear about the extent of information that will be provided in the state EIS regarding accidents and terrorism risks – risks that must be fairly examined – when it notes that NRC has "sole jurisdiction over . . . ISFSI design and safety from threats such as accident and terrorism."[19] While the NRC may have jurisdiction over imposing protective design features – or choosing not to impose such protections – on ISFSIs or nuclear power plants, disclosure of the risks and the basis for and extent of required protective measures to mitigate such risks is appropriate in the state EIS.

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[18] The "overstatement" on page 1 is likely inadvertent, since elsewhere in the Draft Scope, it is stated that "state regulation" of radiological, health and safety standards is generally preempted.

[19] Draft Scope, p. 7.

Relicensing EIS
The Draft Scope and EAW make frequent references to a federal EIS that will be prepared by the NRC in connection with Xcel Energy's relicensing application for Monticello. ME3 agrees that the existence of a federal EIS may provide opportunity to avoid duplication in review of the Monticello project, but it is unclear at this juncture what the scope of the federal EIS will be, or whether it will be available in time to inform a CON decision. The Final Scope and EIS that the EQB prepares for the Monticello project should contain a complete list of the relevant issues that EQB reasonably anticipates the NRC to examine -- in sufficient time to inform the state Certificate of Need record -- in the federal EIS.

For example, the Draft Scope at page 7 states that the state EIS "will not address the impacts of the nuclear fuel cycle because that issue will be addressed in the [federal EIS] to be completed during the re-licensing review." It is possible that this issue or others, though relevant to the CON decision, will not be addressed in the federal EIS, and therefore should be the subject of the EQB's analysis. In addition, the EQB should determine whether the federal EIS will in fact evaluate health and safety issues applicable to spent fuel storage in the license renewal process – as the Draft Scope states at page 3 – and if not, incorporate disclosure of those impacts into the state EIS.

A consolidated list in the state EIS of issues that EQB reasonably anticipates will be addressed in the federal EIS will facilitate 1) commenters' understanding of the state environmental review documents, knowing what issues are to be analyzed in detail elsewhere, and 2) later supplementation of the state EIS if the federal EIS does not ultimately examine the identified issues, or will not complete such analysis in sufficient time to inform the Certificate of Need record.

Sequencing Issues

Chapter 116D requires EQB's EIS for the Monticello project to precede PUC action on the CON Application. This means that a final EIS should at the very least be published well in advance of submission of testimony and contested case hearings on the Monticello CON Application. This is the only way that parties and the administrative law judge will have a meaningful opportunity to incorporate the full environmental review into the record for PUC action on the CON Application. For the Prairie Island spent fuel storage proposal in the early 1990s, the EQB's final EIS was completed before the CON Application was found substantially complete.[20]

Sequencing concerns also implicate the Draft Scope proposal to "incorporate by reference the economic analysis of the DOC and other parties to the CON proceeding." While it is desirable to have DOC's or other parties' economic analyses available to

[20] *See*, April 10, 1992, *Findings of Fact, Conclusions and Recommendation*, p, 3-4, In the Matter of the Application of Northern States Power Company for a Certificate of Need for the Construction of an Independent Spent Fuel Storage Facility, PUC Docket No. E-002/CN-91-19.

EQB, this will be problematic as a matter of timing since a final EIS should precede party testimony in the CON contested case. Moreover, an economic analysis that is not based on the assumption that the Monticello project is one for permanent storage would be irrelevant to the EQB environmental review record. EQB may therefore need to seek out a separate economic analysis(es) for use in EIS preparation.

Conclusion

To summarize the principal issues discussed in these comments, ME3 urges the EQB to revise the Draft Scope and Draft EAW as follows:

- Modify the description of the proposed Monticello project as one for long term, permanent storage;
- Study the project as a proposal for 65 rather than 30 dry cask storage modules, consistent with the planned use of the proposed site;
- Acknowledge that Yucca Mountain is at best only a potential partial site alternative for the proposed dry cask installation;
- Analyze a phase-out option for Monticello if it continued to operate at reduced capacity until the end of its license, and potentially beyond 2010, in combination with other alternatives such as increased efficiency and generation alternatives that may be less than 600 MW;
- Include a list of issues that EQB anticipates will be addressed in detail in the federal EIS that NRC will prepare in connection with relicensing the power plant, and to the extent that relevant issues will not be addressed by NRC, include those issues in the state EIS;
- Disclose information related to health and safety, as well as risks of accident and terrorism, since to do so is not be tantamount to state regulation of federally preempted areas of law;
- Complete the Final EIS significantly in advance of the scheduled dates for written testimony and hearings in the contested case for the CON, so that parties and decision makers in the contested case will have access to the completed environmental review record.

Thank you for considering ME3's comments in this matter. Please do not hesitate to contact me with any questions you may have.

Sincerely,

Elizabeth Goodpaster

Attorney for Minnesotans for an Energy-Efficient Economy